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Factor Analysis of Maternal Knowledge on the Incidence of Stunting

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Abstract

Stunting is a nutritional problem that occurs in toddlers; this nutritional problem begins to appear when the child is two years old. Stunting is a condition where children experience failure in growth. This study aimed to determine mothers' knowledge about the incidence of stunting in Bagan Serdang Village, Pantai Labu District, Deli Serdang Regency. This research method is a quantitative study using questionnaires, observations, and a cross-sectional approach. The population in this study were mothers who had toddlers in Bagan Serdang Village. Sampling in this study uses Non-Probability Sampling with a Purposive Sampling technique. In the study, a study done in Bagan Serdang Village, the vast majority of respondents needed more knowledge, namely 21 respondents (70%) and nine respondents (30%). This is due to a lack of counseling and a maternal desire to understand what stunting is and how to avoid it. Due to the absence of maternal awareness about the frequency of stunting, stunting rates have occurred. The frequency of stunting in Bagan Serdang Village was determined to be five toddlers (16.7%), whereas 25 toddlers (83.3%) were not stunted or normal. From here, we know that the mother's knowledge about stunting is one of the causes.Some efforts must be made in Bagan Serdang Village to increase mothers' knowledge about stunting in infants and toddlers by counseling mothers on the importance of nutrition in toddlers so that the incidence of stunting can be reduced by promotive, preventive, and curative measures provided by the village in collaboration with health workers.

Keyword:* *Knowledge, Stunting, , Toddlers

INTRODUCTION

Stunting is a nutritional issue that affects toddlers; this nutritional issue starts to manifest at the age of two. However, stunted children have had nutritional issues from the womb (Karsona et al., 2019). Stunting is a disorder characterized by stunted development in children. This illness is the result of long-term, chronic dietary deficiencies (Amalia et al., 2021); (Agustiningrum, 2016). Inadequate nutrition throughout pregnancy and the first two years of life causes children to miss out on their peak development years (Windi, 2018); (P. S. Fatimah, 2020).

A syndrome in which newborns (0-11 months) and children under the age of five (12-59 months) have growth failure owing to chronic malnutrition, particularly in the first 1,000

days of life, resulting in abnormally short stature (Margawati & Astuti, 2018). Globally, initiatives aimed at lowering the incidence of stunting must concentrate on the first 1000 days or Scaling Up Nutrition (SUN) until 24 months of age (Nindyna Puspasari & Merryana Andriani, 2017). The World Health Organization (WHO) proposes a 3.9% annual decrease in stunting to reach the 2025 goal of a 40% reduction in stunting.

According to the Nutrition Status Monitoring (PSG), the prevalence of short toddlers in the province of North Sumatra in 2015 was 33.2%, with the percentage of short toddlers being 17.8 and the proportion of extremely short toddlers being 15.2 (Zurhayati & Hidayah, 2022). Moreover, according to the Basic Health Research (Rikesdas) findings, in 2013, the nationwide prevalence of stunting decreased from 37.2% to 30.08 %. In North Sumatra Province, the 2013 rate of 42.5% declined to 32% in 2014 (Kementerian Kesehatan RI, 2018)

Based on Rikesdas data, the prevalence of stunting patients in Deli Serdang Regency in 2013 revealed a stunting rate of 37.7% which fell to 25.68% (Kementerian Kesehatan RI, 2018). Since 2020, Deli Serdang Regency has been a stunting locus district, and as part of the local government's commitment, Deli Serdang Regency is implementing integrated stunting reduction acceleration initiatives. Such as determining the distribution of stunting, establishing a strategy for improving community nutrition, ensuring communities have legal certainty when implementing interventions linked to stunting, monitoring toddler growth and development to track stunted growth, and much more.

Bagan Serdang Village is one of the communities in Deli Serdang Regency where stunting is prevalent. According to the findings of the Bagan Serdang Hamlet Posyandu statistics from 2022, there were 140 toddlers in the village. It was discovered that 15 toddlers, or 10.7%, were stunted, and three toddlers, or 2.1%, were on the yellow line. Stunting sufferers are children aged 0 to 59 months with chronic nutritional difficulties caused by several reasons. One is awareness of enough nutritional intake during pregnancy and adequate toddler nutrition. On September 19, 2022, questionnaire data were gathered from 30 respondents who attended the toddler posyandu in Bagan Serdang Village about mother awareness of stunting. Five of the thirty respondents surveyed, or 16.7%, suffered stunting. This research seeks to evaluate if parental awareness of stunting is associated with the prevalence of stunting in Bagan Serdang Village.

METHODS

This type of research is descriptive research to describe a situation objectively using numbers starting from data collection, data interpretation, and presentation of the study results (Sastroasmoro, 2017). This type of research is descriptive research using quantitative methods with a *cross*-sectional research design which is a type of research by observing population and sample data simultaneously. Data collection techniques through questionnaires, field observations, and documentation.

This research was conducted in the Bagan Serdang Village area, Pantai Labu Subdistrict, Deli Serdang Regency, with the research time starting in early September to October 2022. The choice of research location was due to knowing the factors of maternal knowledge on the incidence of stunting. The population is a set of objects that will be generalized through research results. The research population used is all toddlers in Bagan Serdang Village, which is 140 toddlers; the sample to be examined is toddlers in the village of 30 people.In this study, the sampling method used was Non-Probability Sampling, namely Purposive Sampling.

RESULTS

From the research conducted in Bagan Serdang Village, Deli Serdang Regency, North Sumatra Province, the following results were obtained.

Tabel 1 Characteristics Respondents in Pantai Labu District, Deli Serdang Regency

Age	N	%
<30 Years	18	60
>30 Years	12	40
Education	**N**	**%**
None	4	**13.3**
Primary School	8	26.7
Junior High School	13	43.4
Senior High School	4	13.3
University	1	3.3

Jobs	N	%
Not working	20	66.7
Self-employed	8	26.7
Goverments worker	1	3.3
Teacher	1	3.3
Height	**N**	**%**
<150 cm	9	30
>150 cm	21	70
Total	**30**	**100.0**

Based on the table above, it is found that of the 30 respondents of mothers who have toddlers, it is known that the mother's age group is <30 years, as many as 18 respondents (60%), and the mother's age group is >30 years as many as 12 respondents (40%), the most mother's education group is junior high. School as many as 13 respondents (43.4%), high school four respondents (13.3%), elementary school eight respondents (26.7%), college as many as one respondents (1%), and who do not have as much education (13.3%).

Tabel 2 Knowledge about stunting in Pantai Labu District, Deli Serdang Regency

Knowledge about Stunting	N	%
Less	21	70
Good	9	30
Total	**30**	**100.0**

Based on the table above, it is found that. Respondents with a poor level of knowledge about stunting are more than those with sufficient or good knowledge about stunting. Respondents with less knowledge, were 21 respondents (70%), while respondents with good knowledge 9 (30%).

Tabel 3 Incidence of Stunting in Toddlers in Pantai Labu District, Deli Serdang Regency

Incidence of Stunting	N	%
Normal	5	16,7
Stunting	25	83,3
Total	**30**	**100.0**

Based on the table above, it can be seen that the respondents with normal toddlers were 25 (83.3%).

DISCUSS

Folks' levels of familiarity with other individuals vary considerably. Human experience or understanding of items via one's senses is the source of all knowledge (Nasution, 2019); (Melfa S, 2019). What is meant by knowledge here is that the more frequently people absorb information, the better their degree of knowledge (NK Yuniasih, 2018). A person's knowledge is typically derived via experiences that may be received from many sources, such as mass media, electronic media, poster media, or interactions (Adiba, 2020). The information learned may produce positive beliefs (S. Fatimah, 2017).

Maternal nutrition awareness is the mother's capacity to comprehend all facts on toddler-nutrient-containing food elements (Mauliza et al., 2021). Because generating behavior is an evolution of information that may create attitudes and subsequently impact the construction of conduct, knowledge about child feeding can influence a mother's behavior while feeding her kid (Rahma, 2017). Good nutritional knowledge in mothers is intended to enable them to supply the proper kind and quantity of food according to the demands of their children's growing age so that their children grow optimally and have no issues throughout the growth phase (Adinda, 2020b)

According to experts, mothers' ignorance of stunting results from posyandu's failure to provide advice on stunting and nutrition (Salman et al., 2017). Based on interviews with the leader of the posyandu cadre, it was determined that cadres did not frequently provide counseling on stunting and nutrition to mothers; hence, some mothers were unfamiliar with the term stunting (Agustiningrum & Rokhanawati, 2016).

The prevalence of stunting in Bagan Serdang Village is relatively high; according to Posyandu statistics, the population of toddlers in Bagan Serdang Village was 140 children. Fifteen children suffer from stunting (10.7%), whereas three children are on the yellow line (2.1%). This percentage is relatively high due to a combination of variables, including an understanding of dietary intake during pregnancy and nutritional knowledge of toddlers.

Age, where the older a person is, the better his mental development process, intelligence, or ability to learn and think to adapt to new situations, then the environment where a person can learn good and bad things depending on the nature of the group, a culture that plays an important role in knowledge, and education is fundamental to developing knowledge and experience and is also the best teacher in developing nutrition knowledge (Siregar, 2021); (Hanum, 2020).

The knowledge factor in fulfilling nutritional intake during pregnancy begins with routinely checking their pregnancy at the nearest doctor or midwife, following the Posyandu for pregnant women, particularly for mothers who are pregnant for the first time; it is strongly advised to consult pregnancy and check the development of their pregnancy to the posyandu for pregnant women (Husnul, 2013). In addition to verifying pregnancy with a doctor or midwife, posyandu is the ideal location for pregnant moms to exchange information about pregnancy in terms of pregnancy development and nutritional consumption. In addition to providing the essential elements such as carbs, protein, fat, calcium, folic acid, and iron, multivitamins such as vitamins A, C, B6, B12, and D may serve as nutritional supplements during pregnancy. This may avoid nutritional issues in the fetus, reducing the chance of stunting (Galgamuwa et al., 2017).

The knowledge component in providing adequate toddler nutrition provides adequate child nutrition not just when the kid begins solids but also when the child is already a toddler. Stunting may affect children between 0 and 59 months but is only visible at age 2. Therefore, mothers need to meet their children's nutritional needs, particularly during the first 1000 days of life. Even though breast milk is crucial for a child's development, most moms still struggle to achieve exclusive breastfeeding. A diet rich in carbs, protein, fat, fiber, and multivitamins will prevent stunting and promote healthy growth in children. Providing enough nourishment to youngsters throughout their golden years will promote healthy growth and development (Adinda, 2020a). Inadequate nourishment will make toddlers susceptible to illness, weak, unable to think and interact, and hinder their future growth (Rahmad, 2016); (Aisyah, 2021).

The amount of maternal understanding of stunting is highly affected by a lack of information, among other factors (Sampe, 2020). Not all toddlers' moms attend Posyandu, another factor contributing to their lack of understanding regarding stunting. A person with a higher level of education would likewise have a greater breadth of knowledge. A mother's lack of education does not always preclude her from having enough information regarding her family's diet. Curiosity may affect a mother's decision to learn the best foods for her children. In addition to formal education, non-formal education is a viable means of acquiring more information. Positivity and negativity include the good and bad elements of a person's understanding of an item. These two factors will affect a person's attitude; the more positive elements and items a person is aware of, the more favorable views they will develop about particular things.

Age, where the older a person is, the better the process of mental development,

intelligence, or the ability to learn and think abstractly in order to adapt to new situations, then the environment where a person can learn good and bad things depending on the nature of the group, a culture that plays an important role in knowledge, education is essential to acquiring knowledge, and experience.

Information reception is affected by a person's degree of education. People with a higher education level will be more responsive to knowledge than those with a lower education level (Agnes, 2015); (Muthmainah, 2015). The information is utilized to assist moms in caring for their children daily. A person's viewpoint on something might be understood as perception after acquiring information, either directly or indirectly (Ahmady, 2016); (Fitriani, 2019).

The awareness of mothers of toddlers on stunting, most respondents needed more understanding. This is because several variables, including age and education, impact the lack of mother information about stunting. Researchers hypothesize that parental understanding of nutrition improves children's nutritional status so that they can reach adulthood. Children with stunting are susceptible to both physical and mental health issues. Consequently, not all children can grow and develop by age; some children encounter barriers and anomalies.

Stunting must be avoided and managed as soon as possible since it has several adverse effects, including growth failure, cognitive and motor development obstacles that impede brain development and educational achievement, but not appropriate physical body size, and metabolic issues. Over time, it disturbs intellectual capacity, impairs the structure and function of nerves and brain cells permanently, and causes a decline in the ability to assimilate lessons that will be useful as an adult, reducing the quality of future human resources. Multiple variables impact stunting, including the mother's education, occupation, and family income..

CONCLUSIONS

According to a study done in Bagan Serdang Village, the vast majority of respondents needed more knowledge, namely 21 respondents (70%) and nine respondents (30%). This is due to a lack of counseling and a maternal desire to understand what stunting is and how to avoid it. Due to the absence of maternal awareness about the frequency of stunting, stunting

rates have occurred. The frequency of stunting in Bagan Serdang Village was determined to be five toddlers (16.7%), whereas 25 toddlers (83.3%) were not stunted or normal.

Some efforts must be made in Bagan Serdang Village to increase mothers' knowledge about stunting in infants and toddlers by counseling mothers on the importance of nutrition in toddlers so that the incidence of stunting can be reduced by promotive, preventive, and curative measures provided by the village in collaboration with health workers.

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REFERENCE

Adiba, T. R. (2020). Efektivitas Permainan Ular Tangga Sebagai Media Penyuluhan Terhadap Pengetahuan Gizi Seimbang Siswa di SDN Landungsari 1 Kabupaten Malang. *Preventia: Indonesian Journal of Public Health*, *5*(1), 1–7.

Adinda, D. (2020a). Gambaran Kebiasaan Makan, Body Image Dan Status Gizi Remaja Putri di SMK Negeri 2 Sibolga. *Contagion: Scientific Periodical Journal Of Public Health And Coastal Health*, *2*(1), 39–50. https://doi.org/10.30829/contagion.v2i1.7787

Adinda, D. (2020b). Peran Guru Dan Kejadian Obesitas Pada Siswa Sekolah Dasar Di Kota Medan. *Jurnal Kesehatan*, *13*(1), 14–20. https://doi.org/10.24252/kesehatan.v13i1.10898

Agnes. (2015). Pengaruh Pengetahuan Dan Sikap Kader Terhadap Perilaku Kader Dalam Penyuluhan Gizi Balita Di Posyandu Wilayah Kerja Puskesmas Ngemplak Kabupaten Boyolali’. *Jurnal Kesehatan*, *4*(3), 57–71.

Agustiningrum, T., & Rokhanawati, D. (2016). Hubungan Karakteristik Ibu Dengan Kejadian Stunting PAda Balita Usia 24-59 Bulan Di Wilayah Kerja Puskesmas Wonosari I. *Universitas ’Aisyiyah Yogyakarta*, 1–6.

Ahmady. (2016). Penyuluhan Gizi Dan Pemberian Tablet Besi Terhadap Pengetahuan Dan Kadar Hemoglobin Siswi Sekolah Menengah Atas Negeri Di Mamuju. *Kesehatan Manarang*, *2*(1), 1=10.

Aisyah, S. (2021). Faktor yang Berhubungan dengan Kejadian Stunting pada Balita di Desa Kebun Kelapa Kecamatan Secanggang Kabupaten Langkat Tahun 2020. *Jurnal Gentle Birth*, *14*(1), 40–51.

Amalia, I. D., Lubis, D. P. U., & Khoeriyah, S. M. (2021). Hubungan Pengetahuan Ibu Tentang Gizi Dengan Kejadian Stunting Pada Balita Relationship Between Mother’S Knowledge on Nutrition and the Prevalence of Stunting on Toddler. *Jurnal Kesehatan*

Samodra Ilmu, *12*(2), 146–154.

Fatimah, P. S. (2020). Konsumsi Buah, Sayur Dan Ikan Berdasarkan Sosio Demografi Masyarakat Pesisir Provinsi Sumatera Utara. Uin Sumatera Utara. *Contagion : Scientific Periodical of Public Health and Coastal Health*, *2*(1), 51–63. https://doi.org/10.30829/contagion.v2i1.7630

Fatimah, S. (2017). Hubungan Karakteristik dan Pengetahuan Ibu dengan Pemberian ASI Eksklusif di Wilayah Kerja Puskesmas Turi tahun 2017. *Hubungan Karakteristik Dan Pengetahuan Ibu Dengan Pemberian Asi Eksklusif*, 104.

Fitriani, S. D. (2019). Penyuluhan Anemia Gizi Dengan Media Motion Video Terhadap Pengetahuan Dan Sikap Remaja Putri. *Jurnal Kesehatan*, *11*(1), 97–104.

Galgamuwa, L. S., Iddawela, D., Dharmaratne, S. D., & Galgamuwa, G. L. S. (2017). Nutritional status and correlated socio-economic factors among preschool and school children in plantation communities, Sri Lanka. *BMC Public Health*, *17*(1), 1–11. https://doi.org/10.1186/s12889-017-4311-y

Hanum, S. (2020). Efektifitas Film dan Ular Tangga Terhadap Pengetahuan dan Sikap Siswa Sekolah Dasar Tentang Kecacingan. *Contagion : Scientific Periodical of Public Health and Coastal Health*, *3*(1), 1–15. https://doi.org/10.30829/contagion.v3i1.8903

Husnul, K. (2013). Kajian Tingkat Pengetahuan Ibu, Tingkat Pendapatan, Tingkat Pendidikan dan Jumlah Anggota Keluarga Berkaitan dengan Status Gizi Balita di Kecamatan Sedati dan Kecamatan Wonoayu Kabupaten Sidoarjo. *Paper Knowledge . Toward a Media History of Documents*, *01*, 12–26.

Karsona, A. M., Kusmayanti, H., & Puteri, S. A. (2019). Peningkatan Pengetahuan Masyarakat Dalam Mencegah Stunting. *Jurnal Pengabdian Kepada Masyarakat*, *4*(2), 129–132.

Kementerian Kesehatan RI. (2018). *Riset Kesehatan Dasar Tahun 2018*.

Margawati, A., & Astuti, A. M. (2018). Pengetahuan ibu, pola makan dan status gizi pada anak stunting usia 1-5 tahun di Kelurahan Bangetayu, Kecamatan Genuk, Semarang. *Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition)*, *6*(2), 82–89. https://doi.org/10.14710/jgi.6.2.82-89

Mauliza, M., Mardiati, M., Sahputri, J., Zara, N., & Wahyuni, S. (2021). Hubungan Tingkat Pengetahuan Ibu Dengan Pemberian Mpasi Dini Di Wilayah Kerja Puskesmas Banda Sakti. *AVERROUS: Jurnal Kedokteran Dan Kesehatan Malikussaleh*, *7*(2), 50. https://doi.org/10.29103/averrous.v7i2.5419

Melfa S. (2019). Penyuluhan Gizi dengan Pengembangan Food Model ‘Piring Makanku’ Meningkatkan Perilaku Konsumsi Makanan Seimbang pada Remaja. *Jurnal Riset Kesehatan Poltekkes Depkes RI Bandung.*, *10*(1), 1–10.

Muthmainah, F. N. (2015). *Pengaruh Penyuluhan Dengan Media Audio Visual Dan Leaflet Terhadap Pengetahuan Ibu Tentang Pemberian Makan Pendamping ASI*. Institut Pertanian Bogor.

Nasution, F. (2019). Improvement Of Knowledge And Attitude Of Community Figure In Preventing Malaria Disease Through Discussion With Leaflet And Module. *Jurnal Kesehatan*, *12*(2), 154–164.

Nindyna Puspasari, & Merryana Andriani. (2017). Hubungan Pengetahuan Ibu tentang Gizi dan Asupan Makan Balita dengan Status Gizi Balita (BB/U) Usia 12-24 Bulan. *Amerta Nutrition*, *1*(4), 369–378. https://doi.org/10.20473/amnt.v1.i4.2017.369-378

NK Yuniasih. (2018). Program Perencanaan Persalinan dan Pencegahan Komplikasi. *Poltekkes Denpasar*, *2018*.

Rahma, H. (2017). Hubungan Pengetahuan Ibu tentang Imunisasi Dasar dengan Kelengkapan Imunisasi Dasar Bayi di Desa Watuwoha Wilayah Kerja Puskesmas Aere Kabupaten

Kolaka Timur Tahun 2017. *BMC Public Health*, *5*(1), 1–8.

Rahmad, A. H. Al. (2016). Malnutrisi Pada Balita Pedesaan Dengan Perkotaan Berdasarkan Karakteristik Keluarga : Data Psg 2015 Malnutrition A Toddler Rural And Urban Areas Based Family Characteristics : Mns 2015. *Idea Nursing Journal*, *VII*(2), 43–52.

Salman, Arbie, F. Y., & Humolongo, Y. (2017). Hubungan Pengetahuan Gizi Ibu dengan Kejadian Stunting pada Anak Balita di Desa Buhu Kecamatan Talaga Jaya Kabupaten Gorontalo. *Health and Nutritions Journal*, *III*(I), 42–53.

Sampe, S. A. (2020). Hubungan Pemberian ASI Eksklusif Dengan Kejadian Stunting Pada Balita. *Jurnal Ilmiah Kesehatan Sandi Husada*, *11*(1), 448–455. https://doi.org/DOI: 10.35816/jiskh.v10i2.314

Sastroasmoro, S. (2017). *Dasar-Dasar Metodologi Penelitian Klinis* (Edisi Ke-5). Sagung Seto.

Siregar, P. A. (2021). Improvement Of Knowledge And Attitudes Of Tuberculosis Patients Treatment With Poster Calendar And Leaflet. *Journal of Health Education*, *6*(1), 39–46. https://doi.org/10.15294/jhe.v6i1.42898

Windi, H. (2018). Hubungan Pendapatan Keluarga, Pengetahuan Ibu Tentang Gizi, Tinggi Badan Orang Tua, Dan Tingkat Pendidikan Ayah Dengan Kejadian Stunting Pada Anak Umur 12-59 Bulan. *Journal of Controlled Release*, *11*(2), 430–439.

Zurhayati, Z., & Hidayah, N. (2022). Faktor Yang Berhubungan Dengan Kejadian Stunting Pada Balita. *JOMIS (Journal of Midwifery Science)*, *6*(1), 1–10. https://doi.org/10.36341/jomis.v6i1.1730